

# Irrigation consulting tools for sugar cane

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## Abstract

Irrigation is experiencing a gradual evolution in Reunion as reflected in the development of large area such as the *Bras de la Plaine*, the *Bras de Cilaos*, *Champ Borne* and the West Coast. These areas, located at altitudes between 0 and 660 m above mean sea level, are mainly used for sugarcane production, the most common crop in the agricultural landscape. Water requirements vary greatly according to geographical area, altitude and the crop cycle. Finding the balance between the different uses of water, particularly in relation to availability, remains a major challenge for economic development.

The Chamber of Agriculture identified the need to provide farmers with decision-making tools to optimize the management of irrigation on-farm, contribute to preservation of the water resources and improve sugar cane production

The following irrigation tools are available:

- *Irrigation disc* – Users have access to specific discs for each of the 18 homogeneous climatic zones in the irrigated areas on Réunion Island. Once reset at harvest, the appropriate disc will indicate the volume of water (m<sup>3</sup>/ha) needed to restore the soil water reserve to field capacity at the beginning of the crop cycle. The disc will also display irrigation application rates (m<sup>3</sup>/day/ha) in the absence of rain or the period when no irrigation is needed if rain has occurred.
- OGICAS Irrigation Software– This user-friendly application is accessible via the Chamber of Agriculture website. It provides information relating to irrigation management for the various agricultural sectors, including location and appropriate parameters. It automatically calculates the irrigation needs and application rates as with the irrigation discs, but the advice is customized. It also provides a report for the grower's use and records.

*Keywords:* irrigation, tools to aid decisions, sugarcane